

Amendments to the Specification:

Replace paragraph [0017] with the following paragraph:

[0017] During steady state operation above the idle speed of the engine, the fuel injections into the cylinders are discrete events, beginning at regular time intervals and having identical duration. During an injection event, the control valve 130 is closed so that pressure in the pump outlet line 125 rises to the desired high supply level (e.g. 200 bar). Between fuel injection events, the control valve 130 is opened so that the fuel displaced by the high pressure supply pump 120 is recycled to the inlet line 119. Without that displacement of fuel, pressure in the common fuel rail 128 would rise above 200 bar. Opening the control valve 130 maintains the pressure in the common fuel rail 128 at approximately the 200 bar level when all the fuel injectors are closed. Each activation of the control valve 130 and thus each occurrence of high pressure in pump outlet line 125 has a longer duration than the associated injection event. The injection event, control valve activation, and high pump outlet line pressure all terminate substantially simultaneously. Operation of this type of gasoline direct injection system is described in detail in U.S. Patent No. 6,494,182.

Replace paragraph [0020] with the following paragraph:

[0020] Energizing electromagnetic coil 36 produces a magnetic field indicated by flux lines 42 which attracts the armature disk 24 toward the pole piece 30 to pull the valve element 22 against the valve seat 20 closing the valve, as illustrated in Figure 3. The magnetic flux flows through the armature disk 24 and pole piece 30. [[,]] The size of the electromagnet coil required to generate the necessary force is reduced by providing large cross section areas and very small air gaps through which the flux 42 flows.

Replace paragraph [0023] with the following paragraph:

[0023] With reference to Figures 3 and 5, the forces due to the fluid pressures acting on the valve element 22 are substantially imbalanced to provide a fast open time. Specifically, the valve element has an outer circumferential groove 50 with a first end surfaces 52 proximate the valve seat 20 and a second end surface 54 remote from the valve seat, with both end surfaces being exposed to the high pressure fluid in the outlet line 125 from the fuel supply rail. The diameter of the valve stem bore 15 in the vicinity of the circumferential groove 50 is slightly larger than the diameter of the bore closer to the armature 24, thereby creating a lip 55 adjacent the first second end surface 54 52 (Figure 5). As a result, the area of the second end surface 54 is substantially smaller than the area of the first end surface 52 which is exposed to the high pressure fluid when the valve is closed.

Replace paragraph [0027] with the following paragraph:

[0027] To prevent this fuel from leaking from the control valve 60, a metal cap cup 68 extends over the solenoid actuator 28. A circular lip 72 of the metal cap cup 68 is welded to the base plate 74 of the control valve thereby providing a fluid tight seal that is able to withstand the high pressure in the pump outlet line 125. Thus the metal cap cup 68 and base plate 74 enclose the solenoid actuator 28. A plastic outer housing 76 is molded over the metal cap 68.